



vintz

PLASTICS LIMITED

Your Partner in Recycling



Mavji Varsani

Profile

Vintz Plastics Limited is a business that recycles municipal and industrial plastic waste into pellets for the Kenyan and regional market and has over the last 12 years grown to be a major recycle company in Kenya and in East Africa started with a 0.5 tonnes a day to today's 20 tonnes per day.

Our Goal

**Catalysing Sustainable change In the
Circular economy towards Zero Waste**





Introduction

- ▶ We collect Plastic waste from landfills primarily to reduce landfill dumping, factories and household, separate, wash and produces to a high quality pellets.
- ▶ Plastic being a versatile product has been used mainly as packaging because of its low cost and this has led to an increased demand for single use plastics as packaging, its uses are not only in the packaging industry, but also widely used in every industry and a part of everything we use. The most common resins being PET, HDPE, LDPE, PP, PE and PVC, as plastics are a complex chain of hydrocarbons we have had to be careful on the sorting process and over the years we have trained our collectors understand the various plastic types from its use as many parts made from plastics.
- ▶ Over the years we have designed our waste collection systems from grassroots working with Community Based Organizations and have helped create entrepreneurs in the waste industry, we have worked tirelessly towards creating a sustainable feedstock supply chain, in a sector which is still unstable due to fluctuations on the supply and demand of plastic scrap, we have our collection centres that work hand in hand with CBO's to come up with various methods including reward systems and opening trading lines for various products thus turning our suppliers into partners.

Our Processes



COLLECTION



SORTING



SHREDDING & WASHING

- ▶ The plastic recycling cycle is complex and is what puts off many companies from recycling street waste, not only is it labour intensive, but also energy hungry and errors could mean loss of man hours, fuel, power and most important time goes into waste. This is also one of the reasons most companies do not want to get into the plastic recycling industry, our mantra has been to use all types of plastic waste.
- ▶ Our process starts with COLLECTION, from all different supply chains, that is Street waste, Residential, Industrial, Commercial and Agricultural. Once collected the plastic is then brought to our Sorting facility, here the waste is sorted by, Contamination, all heavily contaminated waste is sent to a different section for initial cleaning and drying, the waste then is renamed into scrap, here it is sorted by colour and resin type, here each type of resin is sent into its own bin, at the bin its sorted into moulding types, being Rotational, Blow, Injection and Extrusion.
- ▶ The next stage is SHREDDING where the sorted scrap is shred into flakes, the flakes are then sent to the Washing bay where it first goes through the cold washing process which is a pre-wash and where most contamination is washed off in stages, the flakes are then hot washed where the flakes become free of all contamination, from here the flakes move into cyclone dryers for hot air drying, ready for the final stage.



COMPOUNDING



GRANULATION

Our Processes

cont'd

- ▶ **The** Final stage is **COMPOUNDING** and **GRANULATION**, the sorted flakes are sent for a final material check and if necessary, additives and plasticizers added and the compound is balanced and ready for granulation, in the granulation process the plastic is melted and made into strands under high pressure and the strands then cut into small pellets, the pellets are then dried and will be free of moisture then packed for onward delivery to our customers
- ▶ In the pipeline are training centres to train community-based organisations on how to classify and sort plastics, as well as provide bailing machines to our waste collection centres, this will help to lower cost of transport from the centres to the factory.

Products & Services

- ▶ The recycled pellets are used by manufacturers for production of plastics products
- ▶ We give the plastic a new life of being reused then use a virgin plastic pellet where possible in industrial products and reduce landfills.
- ▶ R&D - Digital waste mapping app using technology for tracking the value chain to improve efficiency, fairpay, tools to make it better for the marginalised communities by understanding their trends and provide them digital identifications for future solutions
- ▶ Affordable housing-made from waste of plastic waste in recycling process, house designs to provide solutions for the mass market shortage and decent affordable homes with improved standards , made with eco-friendly innovations and integrated approaches aiming to solve many SDG goals
- ▶ Fertilizers made from waste of waste to improve one of the issues to address Food security and help in better growing of agricultural commodities in a affordable costs using basic minerals additions and innovations further by introducing hydroponics and aquaponics.process by color and type and process to recycled pellets
- ▶ We practice Circular Economy and maximum recovery through our processes, we avoid additives and adulteration during the process and hence our pellets fetch better values



100%
RECYCLED
PLASTIC



The Market

- ▶ Kenya produces 1.3 million tonnes of plastic waste annually (UNIDO reports), of which only 30,457 tonnes was recycled in total of which we recycled 5,169 tonnes in 2021, our market share is 17%.
- ▶ Increased regulations globally and increased costs in logistics of imported virgin and recycled prices favours us to sell at competitive price and hug gap in the demand vs supply to fill this vacuum with a higher quality recycled pellets.
- ▶ Using B2B and B2C channels we have been using to sale we have added more buyers both locally and internationally in the plastic manufacturing, our strong presence on the SEO's,referrals, strong marketing sales teams and value added resellers through personalised sale services,education and training on how best to use our recycled products and guaranteeing them on converted products manufacturers
- ▶ Reduction of landfills, supporting Material recovery centers by buying from them and supporting employment in the value chain, gives access of raw materials supply from inert and plastic waste which is hard to recycle as raw materials for affordable housing and making fertilizer





The Opportunity

- ▶ More increasing demand for plastic raw materials as it's a finite resource, the ever growing daily need and the challenges faced to recover and process it correctly as plastic is a still very cheap , reliable and formable material to work, its fast to mould
- ▶ It's not biodegradable hence until its reused, reduced, recycle, repurposed will have this problem if not addressed well leading to landfill, chronic health issues, harming the environment and ecosystems, clogs and blocks waterways
- ▶ Recycling is the central pivot point with multiple linkages and support opportunities can be integrated and value chains added.

Our offering - Circularity & Zero Waste



We aim to convert landfill plastic waste reducing it as much as we can, come up with products that can be used as alternatives in pellets forms as raw material that can be reused or converted in to new type of raw materials / resins that can be accepted for like making bottle to bottle products, plastic sand composites to be used in making construction material or wood composite materials made for low value or hard to recycle plastics like single use, multilayered and mix of biodegradable, acrylic, fibres, nylon etc.



Competition

- ▶ Our main competitors are manufacturers not willing to accept and change to adapt to used recycled products
- ▶ The recycling industries are growing per day and apart from two big recyclers in Nairobi who currently recycle half of what we do per day, we also have many other small scale recyclers who are doing single type of collection and conversion while we do 5 types of conversions under one facility and because of their limited capital resource and knowledge to grow, which gives us the room to capitalise on this opportunity to scale up more with our partnerships with the grassroots level partners, suppliers and community based actors by giving them employment and support to recover more.
- ▶ We work with all actors in this fight not in a competitive but collaborative approach as the cause we feel is bigger, to make a better place for our generations to come with whatever limited capacity we operate on this problem is too big to end , we can only be a small part to control and reduce it and the more people embrace and follow what we do the more will be able to do together in a shorter time than if not done.
- ▶ Most recyclers do types 1,2,4,5 we will do this and also 3,6 & 7 and provide in a circular economic solution
- ▶ Cement based product manufacturers for construction industry
- ▶ Fertilizer makers

Operations

- ▶ We strictly follow rules and guide line of the SDG goals, fair practice, gender equality and apply all the local and international protocols in our operations as we work towards attaining the ISO certification.
- ▶ We believe in gender equality, we have 30 % of our team on permanent not unionized and 70 percent is on contract basis. Because of the type of work we have high turnover as we incentivized more staff to stay with investment on training and creating new career pathways and opportunities.
- ▶ Our policy and process documentations make it easier for us to resolve issues, covers for insurances for machines and staff.
- ▶ We own a fleet of vehicles to collect waste and deliver finished products, our full line line of machinery include shredding, granulating, agglomerating, washing, drying and pelletizing lines at long term rented factory space.
- ▶ Our operations are in Nairobi, Nakuru & Mombasa , starting soon in Kisumu, Kisii, Nanyuki Kampala Uganda

Core Management team



Mavji Varsani

CEO-Founder

Has a creative interest in sustainable living, eco-friendly and energy saving buildings and 30 years experience in various fields of construction and architecture,



Dinesh Halai

Director Founder, in 2010, established Vintz Plastics, the current leader in the recycling sector, he has designed and fabricated various types of machines used in the plastic recycling industry.



Vanita Halai

Director Founder
Co-founder of Vintz Plastics Ltd is designing a blockchain platform to map and track waste plastic together with partners from the informal sector.



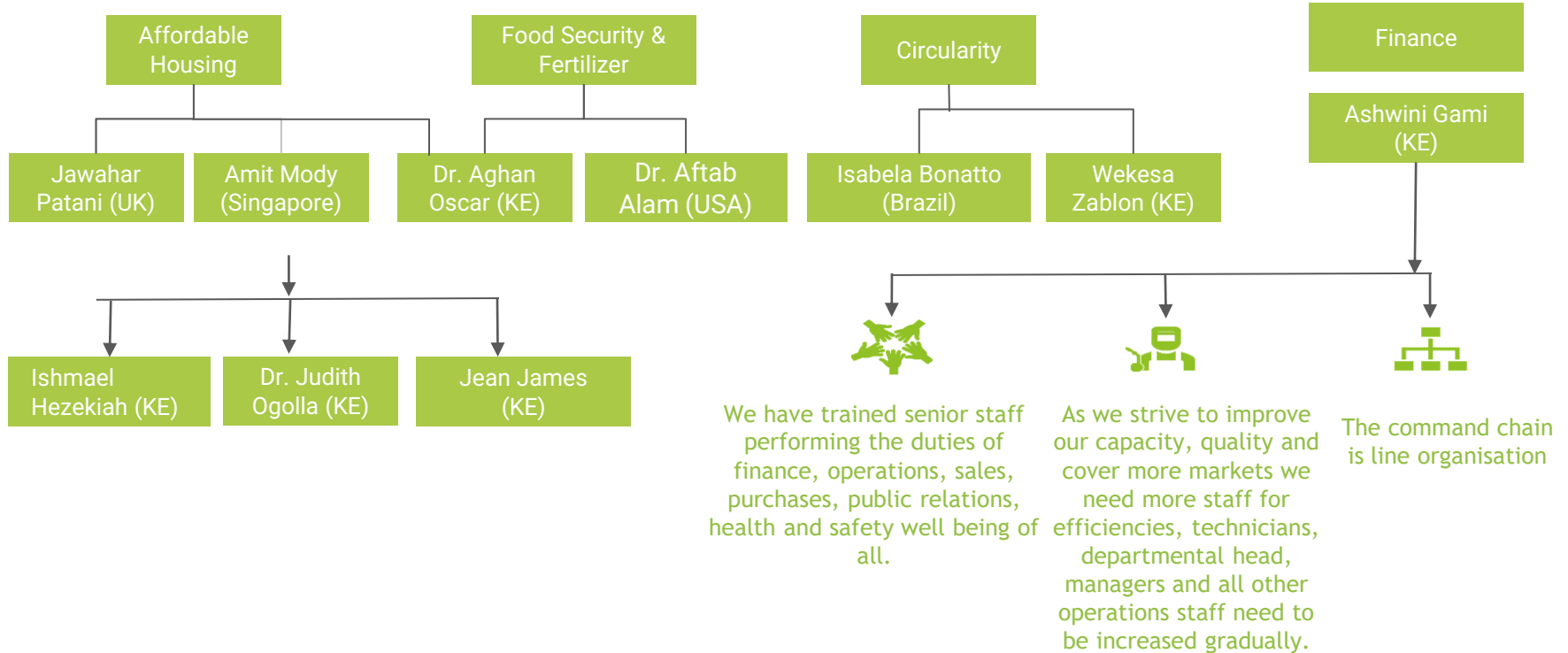
Aruna Varsani

Director Founder

Aruna is a trained Forex Dealer, with a banking industry background. Montessori Directress now implementing the SDGs frameworks and to be a changemaker advocating gender equality and women rights

Team Members & Board Advisors

Support staff



SWOT

Strength

The risks are negligible as the raw material is always going to be in demand, we have backup strategy to convert all types of plastic waste hence there will be Zero Waste, the gap motivates us to take more risks as the demands are more than supplies can be provided not only for local but international markets, as the recycled pellets is still selling lower globally than the virgin there will be demand we only have to ensure continuous good recycled pellets. The new laws like Extended Producer Resonsibilities will create more demand.

Weakness

- Lack of Skilled labour brings challenge in operation as there are no training centers for this kind of industry
- Expensive costs of financing, lack of local machines and technology available hence all have to be imported
- Inadequete resources available to scale up potential recyclers and train many more to join the cause

Oppurtunities

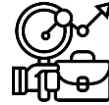
- Waste of waste from the process is the raw materials for Affordable housing and Fertilizer
- Initial technology and execution is Capex intensive with long life and use, advancement and new technologies will be invented globally with innovations which we can adapt easily as we manage the last mile problem

Threats

- Poor planning, Policy enforcement process is biased, no govenment support or rebates to encourage more recycling , same taxations as regular businesses or same term as manufacturers in virgin plastic producers, harresment by govenment people to disturb because of corruption,



Impact



200 Employees
2500 indirect job opportunities



Nairobi, Mombasa, Nakuru, Kisumu,



Remanufactured & Recycled
54,000 tonnes to date



Over 120 network of Communities build
& Education intervention on plastic
management and material recovery



Built Houses and schools ,with off grid
power and sanitation innovations



Employments, Education, better living
standards,



CBO's activated - 800 tonnes in 2021
recovered of the total 5300 tonnes

Expanded to converting Single- use with PET line.

Partnerships with Waste collectors, MRF's, Counties

Multiple awards, notably Circular Economy Zone by
Ministry of Environment & Forestry, Nairobi
Metropolitan Services, Ministry of Foreign Affairs
Denmark, Nairobi City County

We are developing affordable housing materials for
Schools, Houses, Churches,

Fertilizer- food security



Memberships and Awards



Konya
Plastics
Pact



KEPRO
Kenya Extended Producer Responsibility Organization
Collaboration | Commitment | Circular Economy



Global Waste
Cleaning Network



MINISTRY OF
FOREIGN AFFAIRS
OF DENMARK
Danida

GREEN GROWTH
AND EMPLOYMENT
PROGRAMME





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